PHILADELPHIA, SEPTEMBER 27, 1879.

ORIGINAL LECTURES.

CLINICAL LECTURE ON FACIAL PALSY.

Delivered at the University Hospital

BY PROF. H. C. WOOD, JR., M.D.

Reported by DR. JOAQUIN CASTILLO.

GENTLEMEN,—I bring before you a case which offers a great deal of interest in regard to the diagnosis of its cause.

This young woman has been out of health for three months. Her first symptom was severe headache, referred chiefly to the region of the mastoid process of the temporal bone of the right side, and accompanied by occasional spells of giddiness. About six weeks ago she noticed for the first time that she would stagger, or even fall, on attempting to walk. To-day she complains of weakness in her limbs and inability to direct their movements. Her right ear cannot appreciate the tick of the watch even when it is applied close against the head; she has lost the sense of taste on the tip of the tongue of the side affected. She has a tumor under the lower angle of the left scapula which I believe to be a neuroma, on account of its exquisite tenderness on pressure.

By looking at her face you can at once detect that her right side is paralyzed; her mouth is drawn a little towards the sound side; if I told her to blow, her right cheek would bulge out, and, in eating, food accumulates between the gum and the buccinator muscle. If I tell her to close her eyes, her right eye remains open, and her forehead is utterly expressionless.

What is the origin of this palsy? Have we to deal with a paralysis of peripheral or of centric origin? I believe it to be peripheral, because we have an entire and uniform paralysis of this side of the face. If it were of centric origin we should have scattered face-areas affected, because the portio dura arises by several disseminated centres, and some fibres would probably escape the lesion. It is by reason of this manifold origin of the facial nerve that complete facial palsy is never centric. It is true that there are in this patient certain symptoms—as the staggering and giddiness—which would suggest a centric origin of the palsy, but these symptoms can be explained otherwise.

The loss of hearing is nervous in its character, and not due to a disease of the ear membrane, for we know that if the vibrations of a tuning-fork are not appreciated when we place it upon the side of the head it means either that the nerve of that side is absent or has been incapacitated by disease to perform its function.

The loss of taste can be accounted for by remembering that in facial palsy, when the lesion is so far back as to affect the nerve-trunk before the chorda tympani is given off, through paralysis of that nerve the secretion of saliva is interfered with and the function of taste is lost upon the anterior portion of the tongue on that side. The fact that the loss of taste in this woman is on the same side as the palsy is a very strong indication that the paralysis is of peripheral origin, for a centric lesion destroying taste and motion on the same side in the localized manner here present is an almost unheard-of rarity, if indeed it be at all possible.

The symptoms that would suggest a centric origin are staggering, giddiness, and incoördination of movements; but these may be due to a local peripheral lesion. In the internal ear we have the organs known as the semicircular canals, which probably are not connected simply with the function of hearing, for experimental as well as clinical evidence shows that they are largely engaged in maintaining the equilibrium between the individual and the external world. Thus, if in a bird we destroy these canals we will see it turning around and around, always towards the injured side, or, in other words, performing what are called circus movements. In frogs wounds of the ear produce a similar loss of power on the injured side. In Ménière's disease, you know, apoplexy into the labyrinth is at once followed by staggering, giddiness, etc. Two or three years ago I witnessed a case in which, the man having been shot in the face, a bullet was lodged near the foramen through which the portio dura and the portio mollis enter together; thus pressing on these nerves, it affected profoundly their functional powers, producing phenomena precisely parallel to those which are seen in the animal whose semicircular canals have been injured.

Most probably in this young woman we have a similar condition; not that the semicircular canals are destroyed, but possibly the function of the portio mollis is in some way interfered with by pressure. Another proof that the paralysis is a peripheral one is that the muscles answer much more readily to the continued current than to the galvano-faradic one.

Considering it proven that the paralysis is of peripheral origin, what is the nature of the lesion? It may be rheumatic, or due to disease of the petrous portion of the temporal bone, or to thickening of the membrane lining the aqueduct of Fallopius, or to an injury, or to a chronic tuberculous inflammation of the brain, or, lastly, to pressure by a tumor. We can at once exclude number four, for there is no history of a blow having been received; so can we also exclude number five, for the general appearance and general health of the patient are good, and there is no tenderness or any other local indication of disease of this bone. If the palsy were rheumatic it would have come on suddenly; and in this case the disease has been progressive. It is not due to disease of the petrous portion of the temporal bone, for we have no local tenderness, no signs of suppuration or history of long-standing disease of the ear.

We cannot entirely exclude the thickening of the membrane lining the aqueductus Fallopii, but it is doubtful whether this thickening would be such as completely to obliterate the canal and paralyze the nerves. Moreover, there is no apparent cause for this thickening, and the history of the case is altogether too acute for such a supposition, although not acute enough for the theory of a rheumatic attack. The most plausible explanation of the present phenomena is, according to my views, pressure exerted by a growth, with which, it may be, co-operates some thickening of the membrane lining the aqueduct; the character of this foreign body I believe to be specific, although there is no absolute proof of such origin.

Treatment.—We will give our patient the benefit of the doubt, and will place her on large doses of the iodide of potassium combined with the bichloride of mercury. If the trouble were rheumatic, we would place her on the salicylates, although in our hands they have proven of much less service in the chronic or subacute forms of rheumatism than in the acute forms of the disease. If this trouble is rheumatic in its origin it will be benefited by doses of iodide of potassium, smaller, however, than those given for syphilis.

The use of electricity is advisable, not to cure the disease, but to keep up the tone and proper nutrition of the muscles.

We have not used any blisters behind the ear. The patient is improving under the specific treatment; the tumor at the angle of the scapula is less tender on pressure.

[Under specific and local treatment the patient continued to improve, and was subsequently shown to the class almost recovered.]

ORIGINAL COMMUNICATIONS.

THREE CASES OF CIRCUMSCRIBED INFLAMMATION OF THE LIVER.

BY H. LEAMAN, M.D.,
Surgeon to the Charity Hospital, Philadelphia.

Read before the Philadelphia County Medical Society, June 11, 1879.

I DESIRE to record, though imperfectly, several cases that may not be wholly without value:

Case I.—Mr. T. B., aged 32 years, a wax-maker, had been a soldier in the recent war. While in the service, he had typhoid fever and chronic diarrhœa. The latter continued to trouble him frequently, but his general health was good, and he was in the habit of controlling the diarrhœa by the use of fried cheese, of which he ate large quantities.

October 5, 1875, he was taken with a chill, followed by a high fever, after having been drinking, which was an occasional habit. He seemed to improve, and went about his work a little during November, but complained of weakness and pain in his right side, and had a constantly high pulse, varying from one hundred and eight to one hundred and sixteen and one hundred and twenty beats in a minute. The temperature record was not kept, but certainly did not range high. The pain required to be relieved with anodynes, was localized in the right hypochondriac region, and could generally be elicited by pressure.

The urine was high-colored; rigors were frequent. Gastric symptoms set in as the case advanced, such as loss of appetite, indigestion, nausea, and vomiting. Intestinal disturbance about ten days before death, consisting of frequent and copious discharges, and altered in character, with pus and blood.

No fluctuation could be detected, but there was increased dulness over right lobe. Death took place, February 11, 1876, from asthenia; duration, one hundred and twenty-six days.

Post-mortem examination was made thirty-six hours after death, Dr. N. Hatfield being present.

The liver was pale throughout, probably fatty, and enlarged one-third. On the under surface of the right lobe, close to the posterior border, there was an abscess and destruction of the liver-substance, extending over a surface of four square inches and to the depth of two inches. The right kidney was adherent to the liver at its point of contact, and was destroyed on its upper border by ulcerative action to the depth of half an inch. The surrounding parts in the abdomen were involved by plastic exudation as far as the duodenum, where an opening was found two and a half inches below the pyloric valve. There were two small abscesses in the upper surface of the left lobe, about the size of a small walnut. The left kidney, spleen, and bowels were of normal appearance.

Case II.—Mrs. S. J. B., aged 40, married, the mother of two children, was taken, February 21, 1877, with a severe, agonizing pain in the right hypochondriac and right lumbar regions. A slight murmur of the mitral valve could be heard over the sternum. She had been treated for dropsical symptoms a year previous. During the month of March, her pain and distress in the side continued; external and internal treatment palliated but did not relieve her. There was, at this time, no swelling; a slight tenderness on pressure was all that indicated local or circumscribed inflammation.

April 1, 1877, nearly six weeks after the first attack, she was seized with very severe pain in the same region. To relieve it, at her own request and entreaty, nearly a grain of morphia was given hypodermically. It produced, in less than half an hour, a cyanotic hue of the entire body, with failure of respiration, which continued during two hours, and then slowly passed away, leaving no bad effect. Her suffering continued during the remainder of the year. Nausea and vomiting were present from the first, bismuth and morphia being constantly required.

In the months of June, July, and August the bowels were very loose and irritable, and large quantities of fæcal matter, with evidences of blood and pus, were passed. The most relief was afforded by daily injections of large quantities of warm water. In August, 1877, a swelling first began to appear in the right lumbar region, which apparently increased at the time of her menstrual flow. This swelling continued about the same in size during the fall and winter.

A soft elevation, as if pointing, was distinctly visible on the 3d of March, 1878, when, with the assistance of Dr. Welch, the aspirator was used, under ether, and half an ounce of pus and blood drawn. The needle was undoubtedly in a deep cavity, and moved in different directions, but failed to obtain any more. The puncture continued to discharge, and a second opening formed near the first. Her side continued to discharge freely a healthy pus until about the 1st of June, 1878, when she noticed small, dark fragments passing. These continued to pass frequently.

June 30, 1878, a large mass, blocking up the opening, was observed, and, being easily removed, was found to be the size and shape of a conical rifle-ball, its substance, on hardening, being arranged in concentric lamellæ. The cavity was thoroughly cleansed, and healed without further trouble. The cicatrix is located four and a half inches to the right of and one and a half inches above the umbilicus, two inches and a half above and two inches to the inner side of the right superior spine of the ilium, three inches below the right thoracic border.

Dr. Frank Woodbury furnishes me with the following examination of the mass:

"The substance, consisting of a number of irregular fragments of a dark-brown color, had the usual appearance of gall-stone, some of the pieces being distinctly crystalline in the interior. By submitting part of the specimen to boiling alcohol, and filtering through animal charcoal, I obtained the accompanying substance, which responds to the usual tests for cholesterin, and exhibits the characteristic laminated crystals under the microscope. I also found that an acid solution of the original substance gave the ordinary change in color on applying Pettenkofer's test. The fact that cholesterine was present in considerable quantity, associated with the biliary acids, would warrant the conclusion that the specimen was originally one or more gall-stones which had been broken into fragments."

Case III.—Mrs. M. G., aged 40, mother of six children, stout and fatty, had had, while living in Pittsburg, eight years ago, a severe illness, confining her to bed for three months, during which time she says she spat up blood and pus in quantities. She recollects carrying, previous to that, a bag of meal a mile. Since her illness, eight years ago, she says she has not been able to do anything, and has not seen a well day; has had constant pain in her right side.

June 16, 1878, she sent for me to treat an attack of diarrhœa, which she said had continued for a week. One prescription of calomel and opium relieved her completely. She then directed my attention to uterine trouble, for which she had been treated before coming to Philadelphia, and which she believed was the cause of all her distress. I treated her for a slight inflammation of the cervix during June and July. Her pain, however, continued, and became so severe, about

the 1st of August, that I directed my attention to the side. She was then considerably jaundiced; tenderness in the side well marked, with gastric disturbance; urine high-colored; pulse frequent. All these symptoms continued, and became exaggerated. There was increased dulness in the right hypochondriac region, and a swelling appeared in the epigastric region, which was flat and wide. Temperature very slightly increased. The gastric disturbance became intense, and increased until nothing would lie upon her stomach, and vomiting of biliary matter was frequent and copious. She became extremely exhausted.

September 20, 1878, distinct fluctuation could be detected, but there was no marked pointing. Aspiration was performed, with the assistance of Dr. Welch, and four ounces of thick pus removed. The aspirating needle penetrated to the depth of four inches fully, and was freely movable within, and the pus only flowed after some manipulation. The puncture was made five inches above and four inches to the right of the umbilicus, just below the cartilage of the ninth rib. The gastric and general disturbance was immediately benefited, and she made a slow but good convalescence. She still complains of neuralgic pains in her right side; there is no increased liver dulness; her complexion is clear; and she goes about with very good health. There is still a little tenderness in the epigastric region.

The first case I believe to be idiopathic abscess from whisky and exposure, although chronic diarrhœa did undoubtedly precede it. The second could not be called an abscess of the liver. The symptoms and history were very similar,—almost identical. There was no swelling to indicate at first a distended gall-bladder. The gall-stone, being extricated from the bladder, made its way as stated, and there is at present no dulness in the region of the cicatrix; and from her general health there would appear to be no closure of the bile-ducts. The third case, from a close examination of her statements as to cough and sickness eight years previous, I believe to have been an abscess discharged by the lung; there is no evidence of any lung trouble at present; and this is probably a termination of the former trouble.

SIMPLE TREATMENT FOR SCIATICA.—Dr. Ebrard heats a flat-iron, covers it with some woollen fabric which is moistened with vinegar, and applies the apparatus to the painful spot. The application is repeated two or three times a day. As a rule the pain disappears in twenty-four hours, and recovery ensues at once.

THE PHYSIOLOGICAL ACTION OF CARBOLIC ACID ON THE NERVOUS SYSTEM.

Abstract of a Graduation Thesis.

BY J. SUMNER STONE, M.D.,

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CARBOLIC acid in a very large dose, as is the case with strychnia, may paralyze immediately, death occurring in a few moments without convulsions, or paralysis may first involve the posterior extremities alone, the anterior portions of the body being in a state of exalted excitability running into convulsions.

That these symptoms may occur in warm-blooded animals (rabbits and dogs) has been proved by the experiments of Jogle and Berb (*Gazette Méd.*, pp. 188 and 211, 1872); that they may also be produced in cold-blooded animals is seen in the following experiments:*

Exp. I.—October 18. Frog. Weight, 32 grammes. 4.15 P.M., injected 1 cc. carbolic acid into dorsal lymph-sac. Immediate paralysis of posterior extremities; anterior in condition of reflex excitability. 5 minutes, dead; 10 minutes, right sciatic responds at 12 cm. (Dubois-Reymond's induction coil with one small Grove cell); 14 minutes, right gastrocnemius responds at 12 cm.

Exp. II.—October 19. Frog. Weight, 34 grammes. 4.50 P.M., ½ cc. carbolic acid injected into dorsal lymph-sac. 2 minutes, complete paralysis; 8 minutes, dead.

That these results may also occur after removal of cerebrum and medulla will be demonstrated later.

After a smaller dose the animal lies perfectly quiet for a few minutes; soon muscular twitchings, especially in the posterior extremities, will be noticed, or waves of tremors will be seen running through the whole body, while the hyperæsthesia noticed by Labbée rapidly increased.

Very soon distinct clonic convulsions show themselves, both spontaneous and arising from the slightest irritation. This convulsive stage increases until every muscle of the body participates in rapidly-recurring paroxysms. Sometimes in this stage of the poisoning opisthotonos occurs. The length of this stage and its violence depend on the amount of acid ingested. Gradually the convulsions become less and less violent, and the par-

* The above experiments were made in the Physiological Laboratory of the University of Pennsylvania, at the suggestion and under the supervision of Dr. Robert Meade Smith, Demonstrator of Experimental Physiology.

oxysms farther and farther apart, the stage of paralysis slowly coming on. Following the course of the convulsions the paralysis involves the posterior extremities first, the anterior retaining their condition of exaggerated excitability when the posterior are dead to all irritation. Finally the whole body becomes paralyzed, and death occurs from failure of the respiration.

That this paralysis is not due to the destruction of the neurility of either the nerve-trunks or their peripheries, or to the loss in the muscles of their peculiar functions, is plainly evident from the experiments tabulated below. In them will also be illustrated the progress of the three stages just described.

Exp. III.—October 22. Frog. Weight, 34 grammes. 10 A.M., injected into dorsal lymph-sac 0.1 cc. carbolic acid in 0.1 cc. water. 5 minutes, *apparent* muscular weakness; 12 minutes, slight convulsions on irritation; 14 minutes, convulsions more marked, spontaneous, whole body involved; 24 minutes, the same; 32 minutes, convulsions less marked; 35 minutes, posterior extremities paralyzed, anterior portions of body still convulsed but less marked; 50 minutes, dead; 55 minutes, left sciatic and muscle respond at 12 cm.

Exp. IV.—October 24. Frog. Weight, 26 grammes. 10.40 A.M., put frog into quart of water impregnated with ½ cc. carbolic acid. Allowed to remain 5 minutes. 5 minutes, unable to jump; 12 minutes, distinct convulsions, both spontaneous and on irritation, especially in posterior extremities; 14 minutes, distinct convulsions, decidedly more marked, subject to the slightest irritation; 15 minutes, general convulsions; 30 minutes, general convulsions, no intermission; 57 minutes, paralysis in posterior extremities; 60 minutes, dead; 62 minutes, nerve responds at 20½ cm., muscle at 19 cm.

These results confirm the conclusions drawn by Jogle and Berb (*loc. cit.*) from their experiments on warm-blooded animals.

That the same results occur in the human subject when a toxic dose is taken, may be seen from a case reported by Dr. W. H. Winslow (*Phila. Med. Times*, September, 1874).

In order to localize the action of this drug, we will next study the effect when the poison is prevented from reaching one limb.

Exp. V.—November 2. Frog. Weight, 26 grammes. 4.40 P.M., left femoral artery and vein tied. 5 minutes, injected into abdomen 0.5 cc. 5 per cent. solution carbolic acid; 15 minutes, slight convulsions on irritation produced as readily by irritating left as right leg; 17 minutes, distinct convulsions, left leg involved as other portions of body; 25 minutes, paralysis; 40 minutes, dead; both sciatics and gastrocnemii equally irritable; when divided, irritation of central end of neither sciatic, coil at 0, can produce reflex action.

Exp. VI.—November 3. Frog. Weight, 27 grammes. 4.40 P.M., right femoral vessels tied. 5 minutes, injected into back 0.5 cc. 5 per cent. solution of carbolic acid; 7 minutes, general convulsions in all limbs; 15 minutes, paralysis of both posterior extremities; 20 minutes, dead; both sciatics and gastrocnemii equally irritable; irritation of central end of neither sciatic can produce reflex action.

It is seen from these experiments that the convulsions produced by carbolic acid are not due to irritation of either the motor or sensory nerves or of the muscles, since they occur in a limb in which access of the poison to these tissues has been prevented. They also show that carbolic acid paralyzes neither the motor nerves nor muscles, so rendering it probable that the paralysis which follows the administration of large doses is due to a depressant spinal action.

As regards the action of carbolic acid on the sensory nerves when introduced into the general circulation, it may be surmised from the above experiments that they are not paralyzed, since irritation of the central end of a sciatic which has been protected from the poison preserves its power, when irritated, of evoking reflex action no longer than the nerve which has not been so protected. And although the possibility of the afferent nerves becoming paralyzed after the spinal ganglia have lost their irritability cannot be excluded, it may at present be safely stated that the functions of motor and sensory nerves and muscles are not destroyed in carbolic acid poisoning.

Further on in my reflex-action experiments it will be noticed that late in the experiments there occurs a diminution in the motor power, while the sensory is enormously exalted. This may be due, as Kölliker explains the occurrence of the same phenomenon in strychnia poisoning, to exhaustion following the excessive strain on the motor nerves during the convulsive stage. I think the latter conclusion is a plausible one in this case.

As to the origin of convulsions in carbolic acid poisoning, John R. Haynes (*loc. cit.*) and Ernest Labbée say (*Arch. Gén.*, t. xviii. p. 451, 1871) that after section of the cord no convulsions occur. On the

other hand, Salkowski (*Pflüger's Arch.*, Bd. v., 1872), Jogle, and Berb found they did occur after the cerebral centres had been severed, Professor Wood rather leaning to the former view of the subject.

We will now study briefly some of the results of my investigations on this special point in question.

Exp. VII.—November 11. Frog. Weight, 29 grammes. 4.54 P.M., injected down throat .5 cc. 5 per cent. solution carbolic acid. 4 minutes, muscular tremors, slight convulsions; 6 minutes, cord cut in line of anterior extremities; 9 minutes, violent spontaneous convulsions, especially in posterior extremities; 15 minutes, spontaneous convulsions more violent; 16 minutes, the same; 21 minutes, spontaneous convulsions less marked; 26 minutes, paralyzed in posterior extremities.

Exp. VIII.—December 6. Frog. Weight, 32 grammes. 4.40, medulla and cerebrum separated at posterior margin of tympanic membrane. 21 minutes, injected into dorsal lymph-sac .4 cc. 5 per cent. solution carbolic acid; 30 minutes, slight convulsions on irritation; 32 minutes, violent spontaneous convulsion, especially in posterior extremities; 34 minutes, the same; 37 minutes, distinct opisthotonos; 39 minutes, slightest jar or breath of air causes convulsions; 45 minutes, convulsions less marked; 50 minutes, convulsions slight on irritation; 57 minutes, convulsions spontaneous but slight; 60 minutes, the same; 64 minutes, convulsions in entire body; 75 minutes, the same; 80 minutes, slight convulsions in posterior extremities, where they have been very pronounced during the whole experiment; 113 minutes, convulsions less marked; 125 minutes, convulsions very slight.

Exp. IX.—November 26. Frog. Weight, 21 grammes. 11.5 A.M., medulla separated at posterior margin of tympanic membrane. 27 minutes, injected into abdomen .4 cc. scant 5 per cent. solution carbolic acid; 30 minutes, slight spontaneous spasms in posterior extremities; 33 minutes, convulsions violent, whole body involved; 40 minutes, milder; 42 minutes, only in anterior extremities.

Exp. X.—November 8. Frog. Weight, 30 grammes. Injected into abdominal cavity .3 cc. 5 per cent. solution carbolic acid. 4 minutes, apparent muscular weakness; 5 minutes, slight convulsions on irritation; 7 minutes, marked convulsions in whole body; 10 minutes, cord cut in line of anterior extremities; 12 minutes, convulsions continue same as before section; 15 minutes, convulsions still persist in posterior extremities as in other parts of body; 25 minutes, paralyzed.

More corroborative testimony on this point will be brought forward in the detailing of my reflex-action experiments.

It is seen that, without exception, in the four last experiments distinct convulsions occurred in the posterior extremities after section of the cord. In Experiments VII. and X. the cord was not divided until distinct convulsions had been produced, and they occurred with the same violence after as before the section. Complete section of the cord was proven by post-mortem examination.

I insert here some of the experiments of Jogle and Berb, on dogs and rabbits, bearing on the same subject:

Exp. I.—Dog. Made section of cord in lumbar region; as result, complete paralysis of posterior extremities. Immediately injected my carbolic acid. 6 minutes after injection, clonic convulsions in posterior as in other parts of body; 2 hours after, same condition persists.

Exp. II.—Rabbit. Injected 6 grammes of solution,—50 grammes acid to 200 of water. After convulsions had developed, made section of cord. 10 minutes, convulsions in posterior extremities; more marked in anterior portions of body; 25 minutes, clonic convulsions in posterior extremities.

Against the results obtained by Jogle and Berb (*loc. cit.*) and Salkowski (*loc. cit.*), and those obtained by myself, as heretofore detailed, we have only the results of two experiments by John R. Haynes (*Phila. Med. Times*, March, 1874), on which and the statements of Labbée (*loc. cit.*) Prof. Wood bases the conclusions we find in his "Therapeutics and Materia Medica." As for Labbée, I find no detailed experiments,—simply the statement that the drug produces convulsions by irritation of the isthmus of the brain. As for the results obtained by Haynes, I think that, after the whole field is carefully examined, they will be found not to conflict with my results as much as at first would appear.

As before stated, the posterior portions of the body are the first to feel the exciting, then the paralyzing, influence of this peculiar acid. As is noted, also, in one of Dr. Haynes's experiments, the anterior portions of the body remain in a state of over-excitation after the posterior are completely paralyzed.

By reference to Experiment I. it will be seen that, a large dose being used, I obtained the same result, the posterior extremities being first paralyzed, then the anterior. In many other instances I noted the same results,—that, while it was powerful enough to paralyze the posterior extremities at once, the anterior remained for a varying length of time in a state of

excitation and convulsions. The convulsions were not so violent as when less toxic doses were used; nevertheless, they were distinct. As the dose (three drachms of a saturated solution of carbolic acid) used by Dr. Haynes was, in both cases, given after section of the cord, we do not know but that the same results might have obtained had the sections not been made at all.

I am sure that a corresponding dose, given by Jogle and Berb (*loc. cit.*) to a dog, paralyzed and killed without producing convulsions. These authors are not clear as to whether the anterior and posterior extremities were paralyzed at the same time or not. They do notice, however, as do also Labbée and Dr. Haynes, that when an ordinary dose is given the posterior legs are the first to be convulsed and the first to feel the paralyzant influence of the drug. It is evident, therefore, that Dr. Haynes's experiments are defective, from the fact, first, that he failed to obtain convulsions prior to section of the cord, and, second, in his conclusions he ignored the important fact that even smaller doses than he used have paralyzed the posterior portions of the body without convulsions occurring at all, in some cases the anterior portions of the body succumbing at the same time, in others a stage of excitation preceding the final paralysis.

Further, one of his experiments is not very conclusive, as no convulsions occurred at all in the anterior extremities, and only slightly in the face and diaphragm.

I have to place against these indecisive experiments the results obtained by Salkowski (*loc. cit.*), Jogle and Berb (*loc. cit.*), and myself, and state, as a clearly-proven fact, that the convulsions produced by carbolic acid are spinal in their origin, and that in this portion of the nervous system is located the paralyzant influence of the drug; whether in the sensory or motor tracts, the experiments detailed below will indicate:

Exp. XI.—October 21. Frog. Weight, 34 grammes. 3 P.M., injected into dorsal lymph-sac 0.1 cc. carbolic acid undiluted. 9 minutes, convulsions on irritation; 18 minutes, convulsions spontaneous; 25 minutes, dead; no reflex action produced by irritation of proximal extremity of cut sciatic at 0. Irritation of spinal cord produced movements in the anterior portions of the body, but none in the posterior.

Exp. XII.—Frog. Weight, 32 grammes. 4 P.M., injected 0.1 cc. carbolic acid into dorsal lymph-sac. 10 minutes, paralysis complete; 15 minutes, dead; produces no effect at 0; 35 minutes, irritation of proximal extremity of cut sciatic; 50 minutes, spinal cord irritated; no response in posterior extremities at 0.

It is probable from these results, since we have shown that the sensory nerves are not paralyzed, that the motor columns of the cord are alone paralyzed, the sensory still retaining their function, as shown in Experiment XI., and that the loss of reflex action is due to paralysis of the motor centres of the cord.

These points, to the best of my knowledge, have not been noticed by previous observers.

The total loss of reflex action is denied by Prof. Labbée, but, as in the other case previously noted he gives no experimental proof, we attach no weight to his testimony.

EFFECT OF CARBOLIC ACID ON REFLEX ACTION.

My first series of experiments on this subject will be with the cerebral lobes alone separated; after that I will recount the effect when the medulla is included in the section.

I would especially call attention to a comparison of these two series, for in them I think will be found strong proof of the existence of a centre much under debate among physiologists of the present day, namely, Setschenow's inhibitory centre. In detailing these experiments it will also be noticed that I have given the general run of phenomena produced by the drug.

Reflex action was studied by Türck's method. The cerebrum was removed in a frog, and when the shock had passed off it was suspended by passing a hook through its nose. The time was then counted, by a metronome beating seconds, that the frog would keep its foot immersed in a dilute acid solution; as soon as the foot was withdrawn it was washed with distilled water to remove all trace of acid.

Exp. XIII.—December 3. Frog. Weight, 20 grammes. 10.25, cerebrum separated; 10 minutes, reflex action in 15 seconds, in solution of sulphuric acid, about 10 gtt. to ʒiv of water; 20 minutes, the same; 25 minutes, reflex action in 20 seconds; 30 minutes, 0.5 cc. 5 per cent. solution of carbolic acid injected into cellular tissue of abdominal walls; 35 minutes, no reflex action in 60 seconds; 45 minutes, reflex action in 60 seconds; 48 minutes, reflex action in 38 seconds; 55 minutes, reflex action in 2 seconds, marked sponta-

neous convulsions; 60 minutes, reflex action in 1 second, convulsions spontaneous and on irritation.

Exp. XIV.—December 7. Frog. Weight, 28 grammes. 9.12, cerebrum separated at anterior margin of tympanic membrane; 22 minutes, reflex action in 15 seconds; 27 minutes, the same; 28 minutes, injected into dorsal lymph-sac 0.5 cc. 5 per cent. solution of carbolic acid; 32 minutes, reflex action in 12 seconds; 36 minutes, reflex action in 10 seconds; 41 minutes, reflex action in 12 seconds; 46 minutes, reflex action in 25 seconds; 49 minutes, reflex action in 29 seconds; 53 minutes, reflex action in 8 seconds, some spontaneous convulsions; 58 minutes, reflex action in 4 seconds; 62 minutes, reflex action immediately, marked convulsions; 67 minutes, reflex action, convulsions; 78 minutes, reflex action in 3 seconds; 83 minutes, reflex action in 5 seconds; 88 minutes, reflex action in 8 seconds, convulsions, weaker; 98 minutes, reflex action in 30 seconds; 103 minutes, reflex action abolished.

Exp. XV.—November 30. Frog. Weight, 38 grammes. 9.4 A.M., cerebrum separated at anterior margin of tympanum; 14 minutes, reflex action in 20 seconds; 18 minutes, reflex action in 20 seconds; 26 minutes, the same; 31 minutes, the same; 32 minutes, 0.5 cc. 5 per cent. solution carbolic acid injected into cellular tissue of abdominal walls; 36 minutes, reflex action in 60 seconds; 41 minutes, the same; 56 minutes, reflex action in 40 seconds; 59 minutes, reflex action in 15 seconds.

It is certainly evident, from these experiments, that carbolic acid, when the medulla remains intact, first inhibits reflex action, this giving way to a stage of enormous exaltation, to be followed finally by complete abolition of that function of the cord. When the medulla is included in the section, we see that one peculiar effect of the drug is gone. This will be noted in the following experiments, selected as illustrations.

Exp. XVI.—December 16. Frog. Weight, 32 grammes. 4.40, medulla separated at posterior border of tympanum. 9 minutes, reflex action in 18 seconds; 15 minutes, the same; 17 minutes, injected 0.4 cc. 5 per cent. solution carbolic acid into dorsal lymph-sac; 30 minutes, reflex action immediate, violent convulsions in all parts of the body; 39 minutes, reflex action immediate, convulsions; 43 minutes, reflex action in 3 seconds; 45 minutes, the same; 59 minutes, the same; 64 minutes, the same; 70 minutes, reflex action immediate, convulsions; 80 minutes, reflex action in 4 seconds; 89 minutes, reflex action in 6 seconds; 111 minutes, reflex action in 11 seconds; 2 hours, reflex action nearly abolished.

Exp. XVII.—November 26. Frog. Weight, 30 grammes. 11.5, medulla separated at posterior margin of tympanum. 12 minutes, reflex action in 15 seconds; 15 minutes, the same; 25 minutes, the same; 27 minutes, injected into abdominal cavity 0.4 cc. 5 per cent. solution carbolic acid; 30 minutes, reflex action in 1 second, violent convulsions in posterior extremities especially, spontaneous and on irritation; 35 minutes, reflex action immediate, convulsions; 40 minutes, frog jerks when acid touches foot, but unable to lift the member from acid, indicating diminution of motor power; 42 minutes, no reflex action in 1 minute, slight convulsions in anterior extremities.

Exp. XVIII.—November 23. 8.56 A.M., medulla separated at posterior margin of tympanum. 33 minutes, reflex action in 14 seconds; 39 minutes, the same; 44 minutes, the same; 46 minutes, 0.4 cc. 5 per cent. solution carbolic acid injected into abdominal cavity; 51 minutes, reflex action in 4 seconds; 56 minutes, reflex action immediate, slightest irritation causes convulsions; 74 minutes, reflex action in 1 second; 80 minutes, the same; 90 minutes, right sciatic cut; 91 minutes, convulsions in all parts of body except injured leg; 92 minutes, reflex action in 2 seconds; 99 minutes, reflex action in 5 seconds.

As previously intimated, instead of the primary fall we have a sudden and extreme rise in the reflex excitability from the first. It is certainly evident that the primary inhibition noted in Experiments XIII., XIV., and XV. is due to stimulation by carbolic acid of a break centre presiding over reflex action located in the medulla, and that the abnormal rise following this is probably partially due to paralysis of this centre. To this action of the drug we can look for an explanation of the primary apparent muscular weakness following its ingestion.

The experiments that follow are only given as confirmatory evidence of the existence of Setschenow's inhibition centre of reflex action.

Exp. XIX.—December 14. Frog. Weight, 21 grammes. Some little blood lost. 12.5, cerebrum separated. 15 minutes, reflex action in 15 seconds; 18 minutes, the same; 22 minutes, the same; 23 minutes, injected into dorsal lymph-sac 0.5 cc. 5 per cent. solution carbolic acid; 26 minutes, reflex action in 34 seconds; 29 minutes, reflex action in 60 seconds; cord cut in line of anterior extremities; 35 minutes, reflex action in 11 seconds, slight convulsions; 39 minutes, reflex action in 8 seconds, slight convulsions; 45 minutes, the same; 63 minutes, reflex action in 5 seconds.

Exp. XX.—December 13. Frog. Weight, 25 grammes. 4.30, cerebrum separated. 15 minutes, reflex action in 14 seconds; 20 min-

utes, the same; 24 minutes, injected 0.4 cc. 5 per cent. solution carbolic acid into dorsal lymph-sac; 27 minutes, reflex action in 30 seconds; 29 minutes, the same; 30 minutes, cord cut at posterior margin of tympanum, spontaneous convulsions; 33 minutes, reflex action in 13 seconds; 37 minutes, the same; 49 minutes, reflex action in 6 seconds; 53 minutes, reflex action in 4 seconds; 69 minutes, reflex action, immediate convulsions; 74 minutes, the same; 79 minutes, reflex action in 4 seconds.

Although the action of the drug is, to a certain extent, blunted by the double operation, still the immediate rise following section of the cord below the medulla during the stages of marked depression is strong evidence, with the results obtained from my other experiments, that there is a reflex inhibitory centre in the medulla, and that it is at first stimulated, then paralyzed, by carbolic acid.

Conclusions. — In large doses carbolic acid may cause immediate paralysis through spinal depression. Smaller doses cause clonic convulsions of spinal origin. Convulsions and paralysis may exist at the same time in one animal, the posterior extremities being paralyzed first.

Neither motor nor sensory nerves nor muscles are affected by carbolic acid.

Reflex action with small doses is first diminished through irritation of Setschenow's centre; it is then increased through its subsequent paralysis, the irritation explaining the ordinary occurrence of *apparent* muscular weakness in the early stage of the poisoning, while the convulsions follow its paralysis. Larger doses may paralyze Setschenow's centre immediately.

It is probable that the spinal action of carbolic acid is confined to the motor columns.

NOTES OF HOSPITAL PRACTICE.

HOSPITAL OF THE JEFFERSON MEDICAL COLLEGE.

SERVICE OF DR. J. C. WILSON.

I. EXOPHTHALMIC GOITRE.

I SHALL bring before you to-day, gentlemen, two chronic cases. The first of these has been under our observation in the out-patient department for several months, and was on one occasion shown to a previous class by my colleague Dr. Rex. The other presented himself for the first time about a fortnight ago.

E. McC., 26 years old, a store porter, came to us in May last complaining of weakness, excessive beating of his heart, and a swelling in his throat. At a glance you are struck with the enlargement of the thyroid body, and with the peculiar staring, almost fierce expression of the man's face, due to the protrusion of the eyeballs.

Let us attend for a few moments to the patient's history as developed in his replies to our questions.

He had good health until two years ago, when he hurt himself in some obscure way —"strained himself," as he says—in lifting a heavy parcel. Since then he has been weak, nervous, and subject to heart palpitations on exertion. A year ago these attacks of palpitation became very frequent, and began to occur independently of unusual exertion or effort. In April last he first observed the swelling of his throat, which increased rapidly from that time. The prominence of the eyeballs was noted when he first came under our observation, but it has since increased, and attracted the patient's attention for the first time about two months ago.

In addition to the foregoing symptoms, he is somewhat anæmic, as shown by the pallid, doughy hue of his skin and the marked pallor of his lips and tongue. Without being fat, he is fairly well nourished, and he tells us that he eats well and that his bowels are right. The tongue is lightly furred.

Analyzing the prominent symptoms in the order of their appearance, we find that the heart is acting with great rapidity. His pulse has been at times as high as 138: yesterday it was 112; to-day it is 120, being accelerated by the excitement of appearing before you. It is strong and full.

The impulse of the heart is strong and heaving, as you see. It is visible over a considerable area of the chest to the left of the lower portion of the sternum. On careful palpation we find that the apex is displaced downwards to the sixth costal interspace, and slightly to the left. There are no murmurs; the first sound is intensified. Here habitual overaction has resulted in hypertrophy.

It is worthy of note that our records show that ordinary doses of veratrum and of aconite have failed to influence either the rapidity or the force of the heart's action in the case before you.

There is visible throbbing of the caro-

tids; epigastric pulsation is absent. He tells us that the beating of his heart is so strong that it sometimes prevents sleep.

The second of the three prominent symptoms that attracted the attention of the patient was the goitre. The thyroid body is greatly enlarged in all its diameters. It projects prominently forward, and extends as far on each side as the anterior border of the sterno-cleido-mastoid muscle, the right lobe being, however, decidedly larger than the left. Its edges are rounded, and it looks like a cushion under the skin; to the touch it is soft and elastic. On moderately firm palpation a distinct thrill is felt, and through the stethoscope there is heard a loud, continuous murmur, which is increased with each systole of the heart.

A few weeks later in the course of the disease the eyeballs began to protrude, and the exophthalmus is now well marked. The lids, however, still meet on closing the eyes, and the mobility of the globe is as yet but slightly impaired. He tells us that he has noticed no impairment of vision. The pupils are equal, and equally respond to light. The anæmia is decided, but it is not profound. There are no other symptoms in the case that require our attention at this time.

May I call upon some member of the class for a diagnosis? Many voices reply, "Exophthalmic goitre." It is correct. I am surprised that you all call it by the same name. When diseases are obscure as to their pathology or as to their causation, they are apt to be known by several names. This is such a disease. Its causation is involved in great obscurity. Except that the neurotic constitution is a predisposing cause, we know but little with certainty of the actual causes of this malady. It has been attributed to fright, to mental shock, to disorders of the reproductive system. It is certainly far more common in women than in men.

The history of the case before you points to a "strain." But I am not sure that the strain was the exciting cause.

The pathology of the disease is also obscure. All the symptoms point to the sympathetic system, and in truth to the cervical ganglia, from which you know filaments are given off directly to the heart and the thyroid vessels, and by way of the carotid and cavernous plexuses to the parts about the eye. And in most of the records of the post-mortem appearances—which are as yet but few—lesions of the cervical ganglia of the sympathetic are noted. But not in all. Several cases are on record in which the sympathetic was found unaltered. This malady is known among the Germans as Basedow's disease, from the writer to whom, as they claim, is due the credit of having first fully described it; among the English as Graves's disease, for a similar reason. The French call it exophthalmic goitre. When we have learned more about it, it will doubtless receive a more distinctive and satisfactory name.

The increase in the size of the thyroid body is due to vascular dilatation; at a later stage of the disease actual glandular hypertrophy takes place.

The eyeballs are mechanically pushed forward in part by enlargement of the vessels behind them, and in part by an abnormal deposit of fat.

The treatment of this case has consisted chiefly in the administration of remedies designed to improve the general health and the state of the blood. As has been stated, cardiac sedatives have been given without benefit. For a period of eleven weeks he took the fluid extract of ergot in doses of thirty minims thrice daily. Under this treatment there was decided improvement. The pulse fell in frequency, and the goitre diminished in size. The patient's general condition also improved; the anæmia became less marked, and he was less "nervous;" his strength increased. But the ergot disagreed with his stomach and had to be discontinued.

We will resume its use; but, in order to avoid all digestive disturbances, it shall be given hypodermically. The best preparation for this purpose is the aqueous solution of ergotin, each minim of which represents one grain of ergot. The dose shall be half a drachm every other day.

We will also employ galvanization of the cervical sympathetic by means of the constant current.

Let me put you on your guard with reference to any *apparent* improvement that may follow the use of remedies in exophthalmic goitre. The natural history of the disease shows a tendency in many cases to spontaneous temporary amelioration of the symptoms. Hence it is advisable to wait for *steady* and *progressive* improvement before concluding that any treatment or course of treatment is a successful one.

TRANSLATIONS.

SARCOMA OF THE LUNG AND RIGHT KIDNEY MISTAKEN FOR A GUMMA--CARIES AND NECROSIS OF THE RIBS.—Dr. Bellouard read an account of the following case at a recent meeting of the Société Anatomique (*Le Progrès Méd.*, 1879, p. 487). The patient, a man of 52, had had various syphilitic troubles from the age of 25. He sought relief for an osseous affection seated at the border of the sternum. M. Gosselin diagnosticated necrosis of the sternum of syphilitic origin, and removed a sequestrum the size of a five-franc piece and extending through the thickness of the sternum. Ten weeks later there was observed a bony enlargement with considerable surrounding induration about the cavity left by the sequestrum, which was situated at the union of the upper and second portions of the sternum. In the centre of this enlargement was a deep, irregular fistula, from which escaped a large quantity of foul pus. For some time previous the patient had suffered occasional attacks of suffocation, particularly at night. These were followed by fits of coughing. Auscultation and percussion failed to show anything abnormal.

The patient gradually sank and died. At the autopsy, in addition to the enlargement mentioned, there was erosion of the inner face of the third rib on either side of the sternum. There were also a number of adhesions about the mediastinum, the anterior portion of which was adherent to the sternum. The fistulous orifice could be traced back into a focus of purulent pleuritis, encysted between the mediastinal and parietal pleura of the right side. It was from this point that the purulent matter noted as escaping during life proceeded. There was an effusion of sero-pus in the right pleural cavity, with several pneumonic centres through the left lung, and sub-pleural emphysema. The most interesting lesions, however, were found in the summit of the right lung (otherwise intact) and in the kidney. The pulmonary tumor was the size of a hen's egg, resembling closely to the naked eye a gumma, so that it was pronounced such by several skilled physicians. In consistence this tumor was somewhat hard. On section it showed a yellowish-white color, marbled with black striæ, causing it to look like Roquefort cheese. The surface of the section was not dry, as in ordinary gummata, but a small quantity of fluid could be obtained by scraping. The texture of the lung was persistent even in the neoplasm, which was surrounded by a capsule of connective tissue separating it from the surrounding lung. Microscopic section showed a fasciculated sarcoma developed in the alveoli of the pulmonary tissue. The renal tumor was the size of a hazel-nut, situated in the cortical structure of the right kidney, and presented the same appearance as the pulmonary tumor. The interesting point about these tumors is with regard to the difficulty of distinguishing them from gummata: nothing but the microscopic examination would render the diagnosis certain.

ACTION OF ATROPIA ON THE CIRCULATION.—Cavazzani (*Lo Spallanzani; Jour. des Sci. Méd.*, 1879, p. 466) concludes, from comparative experiments made upon both frogs and man,—1. That atropia paralyzes the cardiac fibres, since the diastolic period lasts longer, while the systolic period diminishes. 2. With the frog the cardiac revolutions become rarer from the beginning of the experiment. 3. The capillaries and the ultimate arterial and venous ramifications experience a notable constriction, proportional to the dose made use of, but less than that obtained from quinine. The constrictive effect may be uniform, but sometimes it is jerky from the constriction of the separated fibres. 4. Small doses augment the rapidity of the peripheral circulation, and the cavities of the heart become more entirely filled. 5. Larger doses, constricting the capillaries, and thus placing a considerable obstacle in the way of the peripheral circulation, cause slowing of the blood-currents. 6. The blood-globules evidently lose their property of absorbing oxygen. 7. Large and small doses give identical results with regard to the circulatory centre and the vascular network, but large doses slacken the peripheric circulation by augmenting cardiac hyposthenia and constriction of the vessels. 8. Death occurs after large doses by paralysis of the heart, which is arrested in diastole. 9. The narrowing of the capillaries, the enfeeblement of the cardiac impulse, the diminished oxidation of the blood, offer an explanation of the therapeutic action of this substance on man, and, especially, of the favorable action of atropia in acute and chronic articular rheumatism.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, SEPTEMBER 27, 1879.

EDITORIAL.

SURGEON WOODWARD'S NEW VOLUME.

ON returning from a long journey we found, *inter alia*, on our table a notice from the post-office department that there was a package at the post-office too heavy for the carrier. Not long after this our man-servant returned laden with the long-expected second volume of the Medical History of the War. Dr. Woodward's style of writing is always perspicuous, and usually as light as the circumstances will allow; but the circumstance of there having been in the Federal troops 1,739,135 cases of diarrhœa and dysentery during the late war seems to have overpowered the natural brevity and lightness of the doctor; the fruit of his labor is certainly heavy, weighing, according to our office scales, ten and a half pounds, which, for a book with a muslin cover, is sufficient. Seeing that this great mass is all upon a comparatively limited disease or a group of diseases, we fear many will be tempted to sigh for the days of Methuselah.

In war times, however, abdominal fluxes are almost as destructive as the breech-loading rifles, and certainly slay more than do the artillery. They are therefore really worthy of all the care and attention that can be betowed upon them. And if the author of the present tome has put the labor of half a lifetime upon the subject, it is for the universal benefit of all who are swept into the vortex of the world's curse. Of course we cannot here attempt an elaborate notice of such a volume, but we do congratulate Dr. Woodward upon the completion of one of his herculean tasks. Examined either in its historical, its scientific, or its clinical portions, the work evinces labor whose object and result have been the complete exhaustion of the subject. There would seem to be nothing left to say, only a remaining task for some one to boil down into a small compass this huge book, which must remain for all time a monument of thoroughness and completeness.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

A CONVERSATIONAL meeting was held at the hall of the College of Physicians, Philadelphia, June 11, 1879, Dr. John H. Packard, Vice-President of the Society, in the chair. Dr. Henry Leaman presented a paper on "Circumscribed Inflammation of the Liver," and recommended aspiration in the treatment of cases complicated by hepatic abscess.

Dr. M. O'Hara said that the diagnosis of abscess of the liver is often a post-mortem affair, as, unless it should point externally, it rarely can be positively determined during life. In a recent case he had suspected abscess of the liver, as there were symptoms present which suggested pyæmia; he had not as yet positively decided, but would report the case at some future time. He inquired of the lecturer concerning the points of differential diagnosis of abscess of the liver, especially in regard to the temperature record, which is very important. Is abscess of the liver accompanied by the sweating and the high temperature that generally attend other internal collections of pus?

Dr. George B. Dunmire said that in one of the cases mentioned by the lecturer it was reported that the patient was addicted to drinking. In a case occurring in his own practice there seemed to be some connection between the parents' free use of wine and hepatic trouble in a child. When the infant was born it was poorly developed, and soon became affected by disease of the liver, from which it died. At the post-mortem the liver was found to be greatly enlarged and fatty, but no abscess was discovered. This case was referred to as showing some possible connection between intemperance and liver-disease, even by inheritance.

Dr. E. T. Bruen said, in reply to Dr. O'Hara, that in two cases of abscess of the liver, without previous dysentery, which he had observed himself, the temperature record had not been what would be expected in cases of large internal abscess elsewhere in the body, — as in empyema, for instance. The temperature was exceedingly uniform, with a

rise in the evening and corresponding fall in the morning,—an apparent fever, remittent in type,—which kept on a regular course for a month or more, ranging in the neighborhood of 101°, but not going above 102½°. Frerichs calls attention to this peculiarity of this remittent temperature as one point of importance in the diagnosis. Some of his (Dr. Bruen's) patients had had sweats, but they had not been attended with the irregularity of temperature which we find accompanying empyema or pyemic abscess of liver. In one of these two cases there was some enlargement of the liver, but the diagnosis was doubtful; finally, the abscess ruptured through the diaphragm and was discharged through the lung. In his work on diseases of the liver, Frerichs says that in cases of abscess of the liver the line of dulness will be depressed on full inspiration, which does not take place in empyema.

Dr. Charles B. Nancrede said that Dr. Louis Starr had reported three cases of abscess of the liver where the diagnosis was made during life.

Dr. S. D. Risley asked if there were any observations, in these cases of abscess of the liver, as to whether or not there had been intolerance of drugs like iodide or bromide of potassium, or of other alkaline salts.

Dr. Leaman said that bromide of potassium was used in one of the cases, at the suggestion of Dr. Da Costa. It produced no special disturbance.

Dr. Risley said that he had asked the question because, a few years ago, he had had occasion to prescribe iodide of potassium where he had thought it indicated by other difficulties not connected with the liver. He had been warned by the patient that she could not take this drug, as it had produced bad effects once before, when she took it for bronchitis. Nevertheless, he desired to see the effect of the salt, and ordered small doses,—three grains three times a day. In three days she came back to him in a complete state of iodism. She subsequently had fulness in the right hypochondriac region, with enlargement of the liver, followed by hepatic abscess, which discharged through the lungs. Possibly the idiosyncrasy in regard to the iodide was caused by the pre-existing disease of the liver, which interfered with elimination, hence the iodism from small doses of the iodide salt. It is possible that the abscess and the iodide stood in the relation of cause and effect.

Dr. William M. Welch said that aspiration had proved of great advantage in a case of hepatic abscess under his observation. Improvement had commenced immediately after the aspiration, and had steadily continued until the patient was perfectly restored to health.

Dr. O'Hara remarked that in distinguishing true hepatic abscess from empyema the microscope might be useful.

Dr. Charles H. Thomas, several years ago, had a patient under his charge in whom hepatic abscess appeared. There was no clear history of the case, but injury had not preceded it. It spontaneously opened externally before coming under his care. The pus being rather offensive, he injected the cavity with disinfectant solution daily. The opening was two and one-half inches above and to the right of the umbilicus, directly over the liver. The patient afterwards recovered.

Dr. W. R. D. Blackwood stated that, in regard to the administration of iodine salts, he had not seen any reference to a want of their elimination occurring in disease of the liver, and would not consider hepatic disorder as a contra-indication to their employment. The chloride of ammonium has lately been highly recommended by an East Indian physician for congestion of the liver, and, from the physiological experiments that have been tried, it would really seem as if this salt had some direct control over its function. It had certainly appeared to have such control in some cases of hepatic congestion in which he had ordered it.

Dr. Thomas Rich had noticed, in an edition of "Watson's Practice" published twenty years ago, that chloride of ammonium was recommended as a cholagogue. It appears now that physiological experiment has confirmed this old clinical view.

Dr. Bruen said that the reference to the action of muriate of ammonia had recalled to him an interesting case. A well-known druggist in this city is subject to attacks of hepatic trouble of an obscure character, accompanied by jaundice. In this case muriate of ammonia (compressed pills, five grains each, given every two or three hours) has a very decided effect upon his condition; the hepatic congestion yields to it even more quickly than to calomel.

In reply to Dr. O'Hara's suggestion, he said that microscopic examination of the pus does not always show such distinctive characters as might be expected. In one case which he had under his care he had drawn off with the aspirator about two ounces of cheesy matter from an abscess in the right hypochondrium. The examination only revealed pus-corpuscles and leucine crystals, but no hepatic cells, although it was evidently discharged from the liver.

Dr. Frederick P. Henry said that the East Indian physician who had recommended chloride of ammonium as a cholagogue is named Stuart. After reading that communication (in the *Lancet*, he believed), he had made use of this salt in several cases of obscure liver trouble. In cases of jaundice accompanied by fulness in the region of the liver, his plan of treatment is to give diaphoretics, such as jaborandi, so as to make the skin act freely, to be followed by chloride of ammonium. He had never seen a case of

congestion of the liver that this method would not relieve. One case of threatened abscess was completely cured in six weeks. In regard to the microscopic characters of the pus from hepatic abscess, he reported that in one of Dr. Starr's cases epithelial cells were found which could not be distinguished from liver-cells.

Dr. J. T. Eskridge had noticed the article referred to, and had since then treated several cases of congestion of the liver with threatened abscess at the Catherine Street Dispensary. He gave twenty grains three times a day, with the effect of almost immediately relieving the congestion, and in the course of two or three weeks the patient was completely restored. Equally good results occurred in several cases. The symptoms had been loss of appetite, coated tongue, increase in the size of the liver, with a feeling of oppression in the hepatic region, and some fever.

Dr. W. R. D. Blackwood inquired as to the rapidity with which the drug acts. Dr. Eskridge speaks as if it acted almost immediately; others believe that it accumulates in the blood until, finally, the full constitutional effect is produced. The patient complains of a sudden grinding pain, which sends a thrill through him; at this time the drug is thought to act. In one of his own cases this cumulative effect certainly occurred, where hepatitis had followed repeated salivation.

Dr. Eskridge said that some of the patients, while under this treatment, had spoken of a tearing pain in the liver, as if something had broken loose.

Dr. Samuel R. Skillern advocated free drainage and antiseptic injections in hepatic abscess.

Dr. O'Hara referred to a case of dyspepsia with great flatulence and pain, in which the liver was probably at fault. The patient received no benefit from a variety of drugs until muriate of ammonia was administered in twenty-grain doses, when good results followed.

Dr. F. Woodbury said that the effect of ammonium chloride upon the liver is apparently that of a stimulant to the secreting cells, since the experiments of Rutherford have shown that it is a true cholagogue. The nervous symptoms of obscure hepatic abscess have been spoken of by Dr. Hammond, of New York.* The diagnosis of a case of abscess of the liver from one of perihepatitis, empyema, or abscess in the wall of the chest is not essential when considered from a therapeutic stand-point, since the treatment of these conditions is almost identical. Having determined, with the aid of the aspirator or the hypodermic needle, that pus is present in considerable quantity, the obvious course to pursue is to evacuate the abscess, wash out with water tinctured with thymol, carbolic acid, Lugol's solution, or other antiseptic, and, finally, to adopt the ordinary measures to secure free drainage.

Dr. Packard stated that in threatened hepatitis ice is very useful in relieving pain and in reducing the inflammatory action. It should be wrapped up in flannel and applied, several times daily, for a few minutes at a time. The abscess may be caused by gall-stones, where the aspirator would be inefficient. He recalled a case where such an abscess was accompanied by gall-stones, which kept a fistulous tract open for two years, when they were finally discharged. Aspiration would not relieve permanently a condition such as this, which requires a free opening.

Dr. Leaman said that the main points of interest in the cases that he had communicated lay in the facts that they corresponded closely with the symptoms of hepatitis as described in the books, and, secondly, that aspiration was successful in their treatment. There was no subsequent discharge at the point of puncture. He would insist upon the value of aspiration in the treatment of deep abscesses not only of the liver, but also in those connected with caries of the vertebræ or the hip-joint.

ON THE VALUE OF SPLINTS IN THE TREATMENT OF FRACTURES.

Dr. Packard asked Dr. Taylor to take the chair, to allow him to make a few remarks on the value of splints in the treatment of fractures. This subject had been discussed at a recent meeting of the Society, when a paper was read on fractures in the neighborhood of the elbow-joint, and some statements were made at that time which seemed to him likely to lead to great errors in practice. He desired, therefore, to refer briefly to some of the points of treatment more particularly of fractures of the upper extremity. When a bone is broken and reduction is accomplished, if we could hold the parts in apposition until union had occurred, we should get good results invariably; of course this cannot possibly be done, and we therefore have to resort to mechanical appliances that will substitute the hands and prevent muscular action or other disturbance of the fragments. This is what is needed,—an apparatus that will hold the bone, just as the surgeon would hold it with his hands if he could, until union takes place. Dr. Packard would not go so far as to say that no fracture of the extremities can be treated without splints. Some surgeons, as Dr. Moore, of Rochester, and Dr. Pilcher, of Brooklyn, have stated that fractures of the lower end of the radius do very well with strips of sticking-plaster or a bandage around the wrist, and others rely mainly upon postural treatment. One point that he wished to

* In a clinical lecture entitled "On Obscure Abscesses of the Liver; their Association with Hypochondria, and their Treatment." St. Louis Clinical Record, June, 1878, p. 49.

insist upon was that the surgeon should not rely too much upon routine treatment. The idea seems to prevail that if we have a certain fracture, all that is needful is to use a certain splint.

In order to treat fractures in a rational way, we must deal with each case according to its indications, and before applying an apparatus we should adapt it to the special conditions present. He also referred to several points in the application of splints. Arms vary in their length and conformation; there are no two exactly alike: hence a special splint should be arranged for each particular case, and should be carefully fitted to the arm, so as to keep it in the most suitable position.

It is almost impossible to keep the fractured ends completely at rest by a splint applied only to one side of the limb. Binders' board forms one of the best materials we have for making splints, as it can be moulded so as to give support on each side as well as anteriorly and posteriorly. Plaster of Paris and silicate of soda also are valuable in some cases, after the swelling has subsided; by this means the parts may be kept perfectly immovable, and all risk of displacement avoided.

In treating fractures of the forearm, the easiest position is that in which the elbow-joint is flexed to a right angle and the hand brought in front of the chest with the thumb upward. Holding the forearm in this position, after the fracture is reduced, plaster may be applied. First a roll of cotton wadding or thin bandage is wrapped around the forearm; a crinoline bandage is next applied, and mixed plaster rubbed into it with the hand, a sufficient number of layers of bandage being used to make it of the desired strength when dry. In applying the bandage no force should be used, but it should only be drawn smoothly, making reverses whenever necessary, or even a figure of 8, in the middle of the arm. This makes a dressing that perfectly retains the bones in proper position and keeps them at rest. These are the important principles to be kept in mind in the treatment of all fractures; and the appliance that will accomplish this most perfectly is the best one for the case.

Dr. Blackwood agreed with the lecturer. He had listened to a paper, some time ago, recommending the treatment of fractures involving the elbow-joint without the use of splints. A case occurring shortly afterwards he had treated solely by adhesive plaster; another he had treated with binders' board. The result in the first case he is ashamed of, but not of that in the second.

Dr. O. H. Allis said that some of the remarks of the speaker seemed to point to a paper read by himself before the Society a few weeks previous, and he would like to correct some wrong impressions that had grown out of it. In the first place, he was certain that he had not advised dispensing with all support at the elbow-joint when he said that he never used splints. He was always careful to support the fragments during the entire cure. He said that when one of the condyles was fractured, it was in effect to rupture a lateral ligament, and hence there was no longer any lateral support. To compensate for this he was in the habit of putting a strip of adhesive plaster along the inner and outer aspects of the joint, and afterwards to put transverse strips encircling the part from the middle of the upper arm to the middle of the forearm. These, being adhesive plaster, would stick without constricting the part, and he had found a dressing as simple as this sufficient to bring about a perfect union. More frequently he added a starch dressing to the adhesive-plaster dressing, and when the latter hardened it was as effective and protective as any wooden splint.

Dr. Allis, in support of his views, showed cases that he had treated, and these he contrasted with others that had been treated by the wooden splints. He claimed that the legitimate outgrowth of the use of the wooden splint in treating fractures of the elbow-joint was a *marked* angular deformity. "Dr. Packard," he said, "has just illustrated a most ingenious splint that he devised for his little child. Now," said Dr. Allis, "this is in full harmony with what I have said." He used splint *material*, and adapted this material while in a plastic state to the fractured arm. Any such device would meet his approval. What he was contending against was the use of *wooden* splints, that will, when applied to the broken bone by means of a bandage, draw it to the splint.

One other point that has been alluded to is the employment of passive motion. Upon this point, Dr. Allis said that he was not accustomed to employ early passive motion. He believed that the danger of anchylosis was greatly overestimated. He, however, only desired to state his views, but not to speak with the authority of a teacher. In his own practice his first aim was to limit and control the inflammatory stage that usually succeeded fracture involving the joint. He had never met with a case of stiffening where this inflammation had been trifling and where the joint had been kept at rest during repair. In other cases, where the inflammation ran very high, his plan was to wait carefully for its subsidence before he began with passive motion, and this he was careful so to employ as not to retard the progress to a cure.

Dr. C. B. Nancrede opposed routine treatment. Fractures vary in their position and tendency to deformity, and one splint will not suit all cases. In fractures involving the elbow-joint, it is customary to change the angle of the splint during the treatment. The tendency to deformity increases as the arm is extended. When Dr. Allis recom-

mended that children should be allowed to play with the fractured arm unprotected by a splint, he supposed that he would scarcely be willing to allow them to play base-ball; but they could not be prevented from it, and on this account the speaker would not dare to treat such cases without splints. He had frequently seen boys with their arms in splints playing ball, even after he had forbidden them to do so.

Dr. S. R. Skillern detailed a successful case of intracapsular fracture. (Will be published *in extenso* in the *Times*.)

Dr. Packard, in reply to a question in regard to treatment of fractures of the neck of the thigh-bone, mentioned a case which he had under his care some time ago. It was that of a young man who had a fracture of this kind, probably intracapsular. He saw the case within an hour after the injury, put him in bed, and, with the aid of Dr. Nancrede, applied extension. The result was perfect: within eight weeks he was driving a wagon in the street, able to attend to his business.

In treating fractured femur in elderly people, it might sometimes be well to employ a plan lately suggested and extensively used with advantage in cases of hip-joint disease in children. In those who cannot bear confinement, it might be well to raise the foot of the sound limb from the ground by putting a high sole on the shoe and using long crutches. Thus the weight of the injured limb, aided perhaps by attaching a piece of lead to the foot, would maintain extension.

Dr. Ulrich, of Chester, present by invitation, described a method of treatment which he believed to be original. In treating fracture of the leg, he takes a piece of iron hoop long enough to go down the outer side of the limb, and, bending under the foot, passes up the inner aspect to the same distance. This is to be applied accurately to the contour of the *sound* limb, and then taken off and turned around and put on the broken leg, where it serves both as a guide and as a lateral splint, with the ordinary roller bandage. It can be used where other apparatus cannot be obtained.

Dr. Packard approved this suggestion as highly ingenious. He also said that it is sometimes necessary to transfer patients with fracture of the leg to a considerable distance. In a recent case that he was about taking to the sea-shore, he had been using suspension by means of Smith's anterior splint with lateral pasteboard supports. He thought the limb might be comfortably carried in a box, being swung from the top by straps of elastic bandage. This might also be useful in the treatment in bed, and would allow the patient to be moved about the room, the suspension-box being placed in a chair in front of that occupied by the patient. [The plan was carried out, and succeeded admirably.—J. H. P.]

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, MAY 8, 1879.

THE PRESIDENT, DR. H. LENOX HODGE, in the chair.

(Continued from page 610.)

Myeloid sarcoma of jaw. Presented by Dr. M. LONGSTRETH.

SARAH R., æt. 30, married; admitted to the Pennsylvania Hospital, under the care of Dr. R. J. Levis, on March 14, 1879. Her family and personal history offered no peculiarities. Two years previous to her admission, and shortly after the extraction of two molar teeth from the left side of the lower jaw, she noticed a slight swelling and ulceration of the gum around the sockets of the removed teeth. A month later a small piece of bone (alveolar process) came away, and after a month's time the place healed. Some time after this she noticed a small swelling, which was not sensitive or painful to touch, but very vascular, bleeding on the slightest pressure. Frequently, on waking in the morning, she found her mouth "full of blood." About a year ago a part of the tumor was removed; about six months ago an unpleasant odor was first noticed from the disease.

Upon admission, a tumor was found growing on the left side of the inferior maxilla, at the part corresponding to the site of the extracted teeth. It was covered by vascular granulations, which bled very easily on handling. The odor from the mouth was very offensive.

On March 26, Dr. Levis excised this part of the bone; the incision, anteriorly, passed just in front of the first bicuspid tooth; posteriorly, at the angle of the jaw.

The specimen showed the lower half of the body of the jaw, at the seat of growth, entirely unchanged and not affected with disease; the periosteum covering it was normal. The tumor arose as a fungous mass from the alveolar border, and about half an inch above the level of this border of the bone. The breadth of the tumor, transversely to the jaw, measured two inches; its extension along the bone was about the same. The growth seemed to have sprung from the sockets of the teeth, and was extending around the remaining bicuspid tooth. The alveolar process has disappeared; the periosteum around the base of the tumor was much thickened, but there were no spiculæ or plates of bone to be found in it or on the surface of the tumor. The upper surface of the growth was broad, flattened, and ulcerated, and denuded of the mucous membrane; whilst laterally this structure covered the growth. The consistence of the tumor was very firm; on section, its appearance was nearly uniform throughout, of a reddish, flesh-like color.

A microscopic examination of the tumor

showed the structure to be that of myeloid or giant-cell sarcoma. The only peculiarity to be noticed was that the myeloid masses or giant cells were of small size.

Sacculated kidney. Presented by Dr. F. P. HENRY.

I have chosen, for the specimen I am about to present, the term sacculated in preference to surgical or cystic, because the term surgical, while conveying a dim idea of the etiology of the affection, gives none whatever of the morbid process, and the term cystic is also applied to another affection. I would suggest, as better than any of them, the term *alveolar*, on account of the striking resemblance which the dilated pelvis and calices of the kidney bear to a lung-alveolus with its vesicles.

This affection of the kidney is, I believe, invariably caused by a stenosis in some portion of the genito-urinary passages, but in the case under consideration the point of obstruction is not manifest. There is, it is true, in the region of the fundus of the bladder, an intramural tumor, which, on being cut into, was found to contain pus and caseous matter, but it is not so situated as to compress the ureter, either at its orifice or during its course through the wall. Before the kidney was cut open, a very slight pressure upon it caused pus to flow freely into the bladder. There are well-marked evidences of cystitis, and cystitis alone is capable of causing the condition presented by this kidney. Indeed, vesical catarrh is given, by writers upon the subject, a prominent place in the etiology of the disease. I have seen no attempt to explain the modus operandi of this cause, but it is probably as follows:

In uncomplicated cystitis the bladder is never distended; its capacity is diminished by the thickening of its walls and the state of contraction in which it is habitually maintained. This contraction, which is great, becomes extreme so soon as a few drachms of urine have collected, and, as a consequence of this disordered function, the ureter and pelvis of the kidney have to serve vicariously as receptacles for the urine. In health the bladder is passive except during micturition, and offers no resistance to the function of the ureter; in cystitis the function of the ureter is interfered with, and the urine reaches the bladder largely (in some cases, perhaps, entirely) by hydrostatic pressure.

The ureter is dilated to the size of one's forefinger, and the kidney is converted into a large sac subdivided into numerous smaller cavities. The walls of the sac are thicker in the situation of the medullary cones than elsewhere, and here traces of gland-structure are plainly perceptible. The walls of the sac contain, in portions, numerous cheesy foci, varying in size from a pin's head to a pea, and large sections appear to be infiltrated with caseous matter. The capsule is greatly thickened, and, for the most part, easily separable from the surface of the organ. The cavity of the sac is lined with what appears to be a pyogenic membrane. The sac contained three-fourths of a pint of pus, and measures at present, after several weeks' immersion in alcohol, six inches and a half in length and four and a half inches in width at the centre. The ureter is only five inches long.

The patient from whom the specimen was taken was a male, æt. 28, who was admitted to the Episcopal Hospital on January 6, 1879, for phthisis and cystitis. He was at one time transferred to the surgical ward, and sounded for stone by Dr. Forbes; no calculus being detected, he was returned to the medical ward. When I went on duty, on April 1, he was greatly emaciated, and was annoyed by a constant dribbling of urine and pus, the lung symptoms occupying a very subordinate position. He died a short time after I went on duty, and without uræmic symptoms. The lungs were stuffed with tubercles.

The history of these cases is not always such as is here described. That a spontaneous cure of such a morbid process may occur is shown by a specimen I presented to the Society in 1876 (Path. Soc. Trans., vol. vi. p. 87). The kidney was a mere sac "encapsuling a quantity of mortar-like substance," which proved, on microscopic examination, to be inspissated pus. At one time the kidney referred to must have been in a condition very similar to the one now before the Society. In the specimen of 1876 the ureter was occluded, and it is possible that the first step in the direction of a spontaneous cure is occlusion of the ureter.

Cirrhosis of kidney. Presented by Dr. F. P. HENRY.

The specimen of contracted kidney that I now present, a section of which I have placed under the microscope, is of interest, from the fact that it was taken from a case of phthisis, and, further, because in the recent state the granulations of the cut surface were so fine and translucent that I mistook the specimen for one of tuberculosis. It was not until I had made a microscopic examination of the gland that I recognized the true nature of the morbid process of which it is the seat.

The patient from whom the specimen was taken was admitted to the Episcopal Hospital on November 16, 1878. From notes made by Dr. Starr at the time of admission, I find that the urine contained "a trace" of albumen. The case presented no unusual features of interest, and death occurred on April 7, without uræmic symptoms. I have, on previous occasions, remarked upon the almost invariable absence of uræmic symptoms in cases of Bright's disease associated with phthisis. Those observations had reference to the amyloid and fatty kidneys, and to the large white kidney,—the kidney of chronic parenchyma-

tous nephritis. The present case goes to show that the same law applies to the contracted kidney.

The section under the microscope shows an advanced stage of the morbid process. There is little or no cellular infiltration in any portion of this or of several other sections that I have examined, and in some portions nothing but fibrillar connective tissue can be seen. The adventitia of the blood-vessels is thickened, and the renal tubules are greatly atrophied. Where of normal calibre, however, the epithelial lining is intact. There are no tubes to be seen devoid of epithelium,—a sure sign that the process was interstitial from the beginning, and not secondary to a parenchymatous inflammation. The glomeruli are of diminished size, and are surrounded by a ring of connective tissue.

Abscess of the kidney. Presented by Dr. E. T. BRUEN.

A. J., colored, æt. 38, was admitted to my wards in the Philadelphia Hospital, March 3, 1879. His account of his life during the months prior to his admission was very vague, but he had not been confined to bed. He had suffered from polyuria for several months; a week before the date of his application to the hospital for admission he had noticed a severe pain at the base of the left chest, accompanied with dyspnœa. The pain was particularly severe if he attempted to breathe deeply.

During the two weeks passed under my care the symptoms were as follows:

He was very deaf, though previous to his admission to the house he had full possession of the sense of hearing; his sight had become impaired, and on one or two occasions he appeared blind. There was a marked tremor of the limbs, so much so that when in the erect posture he was compelled to grasp objects near him to prevent his falling to the floor. His intellectual condition was very nearly approaching imbecility. The temperature ranged from 101° F. to 103° F., the skin very dry, and a physical examination revealed an effusion in the left pleural cavity. There were no sweats or chills at any time.

Polyuria was very marked; he passed daily from one hundred and forty to two hundred and fifty ounces of urine. The urine was of very low specific gravity (1003); a trace of albumen by Heller's test; very scanty sediment, which, on examination, was found to contain a very few granular and hyaline casts.

At no time during the period of my observation of his case did the above description require modification.

It is to be observed that there was no hypertrophy of the heart, nor increased intensity of the aortic second sound. Death occurred March 19, 1879, the only change in the symptoms being an increased hebetude, with loss of strength, and the blindness and deafness increased. No retinal changes could be noted with the ophthalmoscope.

At the autopsy, made twenty-four hours after death, the viscera, including the brain, were carefully examined, but were found to be free from pathological changes, with the exception that the thoracic cavity contained a pint and a half of purulent fluid, and the kidneys, which I present this evening. The left kidney weighed six ounces, was fatty and somewhat contracted; the right weighed thirteen ounces. On cutting into it, the cortical portion was found to be occupied by laudable pus; the pyramidal portion contained pus at various points, the entire organ resembling the cavity of an abscess; no evidence of an embolic origin existing. The walls of the bladder were normal in every respect.

The symptoms during life led me to believe that my patient suffered from a contracted granular kidney, with pleurisy, to which I ascribed the high temperature. The general symptoms of transient blindness, deafness, and mental torpor I ascribed to approaching uræmia, notwithstanding the absence of important symptoms of this condition, as vomiting, convulsions, etc., and the presence of the high temperature.

The etiology of abscesses of the kidney is so obscure that I have thought it desirable to record this case, although it is of a negative character.

Cystic kidney. Presented by Dr. JAMES TYSON.

The patient from whom the kidneys were removed was a gentleman, 43 years of age, whose business was farming and the purchase and sale of cattle, on account of which he made frequent fatiguing journeys to the West. He first consulted me in May, 1878, and related that his first illness was in 1864. It was evidently nephritic colic. Severe lumbar and abdominal pain continued to recur, more particularly after exposure to cold, until 1865, when he passed a small calculus. He was relieved for three years, having then another attack, during which he passed a sediment which he described as "steel-colored," and, finally, another small calculus, also "steel-colored." There was again an interval of relief until 1873, when there occurred a long series of attacks, in the last of which, in 1874, he passed quite a large stone, three-quarters of an inch long and one-third wide, which he described as having a white coating (phosphatic?). From this time there had been more or less dull pain up to the date of his visit. His urine, which for some time previous had been dark-hued, had lately assumed a lighter hue, and, while brick-dust sediment formerly was observed, it had lately disappeared. Pus was first observed in his urine in 1875, by Professor Reamy, of Cincinnati. He had had no acute attack during the year 1878, up to the date of his visit to me. He had been sounded for stone in the bladder

four times—twice in 1864, once in 1865, and once in 1875—without any results.

At the time of his visit to me he was getting up to pass water from four to eight times in a night, and during the day could not retain it longer than one and a half hours. His urine was pale-amber in hue, had a specific gravity of 1012, and deposited a considerable amount of pus ($\frac{1}{10}$ bulk). There was also a small amount of albumen, not more than a line by Heller's acid-test. The bladder symptoms were very much relieved by sandal-wood oil, but he continued to have attacks of lumbar pain, always after exposure to reduced temperature, especially if he happened to be overheated at the time.

On the evening of January 15, one week after his return from a trip to the West during an extremely cold season, he was seized with one of his attacks, the pain being chiefly on the left side. The attack was one of unusual severity, but he was relieved by a hypodermic injection of half a grain of sulphate of morphia administered by his physician, Dr. W. H. Barr, of Middletown, Del. The relief was complete, but he remarked to Dr. Barr, on the morning of the 17th (about thirty-six hours after the attack), that he had not passed water since two o'clock of the 15th, and had no desire to pass any. I saw him on the 18th, reaching Middletown at two o'clock, just seventy-two hours after he had passed water. The bladder was empty, as shown by the use of the catheter. He was entirely free from pain, but was suffering a good deal from nausea, which had made its appearance the day previous. He was slightly drowsy, but he was so far conscious that he could pass the catheter on himself, as was his custom occasionally. The drowsiness, however, increased during the four hours I spent with him. He was cupped over the loins, and the cupping followed by hot cataplasms, and, in the course of the next nine hours, was freely purged by elaterium and sweated by jaborandi. The treatment availed nothing, however, in relieving the suppression. The drowsiness increased, and he died at noon of the 20th, one hundred and eighteen hours (within two hours of exactly *five* days) after he last passed water.

The *autopsy* was made by Dr. Barr, fifty-six hours after death. The bladder appeared not to have been examined, but all the other organs in the abdomen except the kidneys were normal. The latter are presented to the Society, but the left one has lost almost entirely the appearance which made them, in conjunction, among the most striking specimens of morbid anatomy I have ever seen. It will be observed that one (the right) is sacculated, the cysts ranging from half an inch to one and a half inches in diameter, and being round and oval; in one of them is imbedded a calculus as large as a pea. The others were filled with a yellowish and odorless fluid containing albumen. They were not lined with an epithelium. It is also larger than the normal organ, weighing six and a half ounces. The capsule was strongly adherent. *Microscopic examinations* of thin sections exhibit the appearances of interstitial nephritis, and the condition is evidently one of long standing, the result of the constant hyperæmia caused by the calculi which have from time to time formed, and all of which seem to have escaped except the one still shown in position. In the parenchyma numerous infarctions of blood are seen, and the epithelium is fatty in places. The left kidney exhibited a great and most interesting contrast to the right. It was throughout of a beautiful bright-scarlet color. It weighed seven ounces. The capsule was only slightly adherent; surface smooth. On section, it presented a homogeneous, very bright red color. It was hard in consistence. There were no cysts. The pelvis was somewhat dilated. Microscopic examination showed large, swollen tufts, the epithelium of the tubules largely swollen and desquamated, the blood-vessels normal but over-distended by blood, with other features of a parenchymatous nephritis.

Dr. TYSON said there were one or two points to which he would like to refer. First, the question has been raised, How shall a cystic kidney be recognized? This was a question he had frequently asked himself, and he thought all cases might be divided into two classes, one comparatively easy and the other difficult of recognition. The former include cases accompanied by disease of the bladder; wherever there has been long-continued cystitis, especially in men, we may expect to find a cystic kidney. In the second series of cases, where there is no pus in the urine and no bladder symptoms, we cannot foretell the condition of the kidneys.

He was interested also in the remarks made by Dr. Formad with regard to casts and albumen in interstitial nephritis. In none of the cases presented were casts found, although pus and albumen were present. This is constantly the case in cystic kidney. The absence of albumen with casts is a very rare occurrence, but it sometimes is seen, and, to avoid error, Dr. Tyson thought it better to make the microscopical examination before the chemical test for albumen.

Dr. STARR said that he recalled two cases in which casts were present in non-albuminous urine.

The first, a boy 3½ years old, had scarlet fever early in March, 1875, and died of meningitis five months later. During the interval, he had had two attacks of acute desquamative nephritis. The first occurred, in spite of every precaution in regard to diet and exposure, on March 29, three weeks after the onset of the fever, and subsided about the end of April. The other began on June 1, the urine being

scanty, having a smoky appearance, a specific gravity of 1030, an acid reaction, and containing a large quantity of albumen, numerous epithelial- and blood-casts, and many free blood-corpuscles. On the 14th the urine became more copious and commenced to clear up, and by the 29th it was passed in abundance, was perfectly clear, and contained no albumen, but a few granular and hyaline casts. Subsequently, on July 25 and August 7, 8, and 10, the urine, which was normal in quantity, color, reaction, and specific gravity, was carefully examined and found to be absolutely free from albumen, though the microscope revealed many hyaline and slightly-granular casts.

The second case, a boy 5 years of age, had scarlatina in February, 1879. The attack was so light that the child was not considered ill enough to be put to bed or to require a physician. When I first saw him, on March 6, his hands and feet were still desquamating, and there was considerable anasarca. The urine was diminished in quantity, acid, dark-colored, deposited a soot-like material on standing, and contained a quantity of albumen and numerous epithelial, granular, and hyaline casts. He improved rapidly under treatment. On March 26, the dropsy had disappeared; the urine contained a few hyaline casts, but no albumen. On April 1, there was a slight return of the renal congestion, indicated by the reappearance of the soot-like deposit and a small amount of albumen. Four days later the urine was again clear and free from albumen, but contained a few hyaline casts. From this time up to April 26, when the child passed from observation, apparently perfectly well, the urine was examined several times, and found to contain hyaline casts, although non-albuminous.

In the first case the microscopic examinations were made by Dr. Tyson; in the second by Dr. Simes.

Horseshoe kidney. Presented by Dr. H. F. FORMAD.

These anomalous kidneys are from a man, aged about 45 years, who died in the surgical ward of the University Hospital (service of Prof. John Ashhurst, Jr.). The diagnosis was cystitis and phthisis; the history I could not obtain. I recollect to have repeatedly examined the urine of this man in the pathological laboratory; it showed always the usual evidences of a chronic cystitis,—epithelial cells from different layers of the bladder, in connection with pus and a thick mucus,—but at no time were seen any tube-casts; albumen was found in small quantity.

The autopsy, which I made at the request of Dr. Palmer (the resident physician), confirmed the diagnosis, the wall of the bladder being greatly thickened, and showing numerous erosions of the mucous membrane covered with a thick mucus. There were also foci of cheesy degeneration in the lungs, some of them softened and producing cavities.

The greatest interest, however, is presented by this rare and unexpected condition of the kidneys. The two kidneys were fused at the lower end through a band, forming a so-called horseshoe kidney. The right kidney occupied apparently the normal position in the body (perhaps a little higher than usual, as its upper end had moulded itself into the right lobe of the liver, producing in this organ a distinct depression); the left kidney had a nearly transverse position, a part of it and the uniting band lying across the spine. The weight of these combined glands is thirteen ounces, the right kidney being the largest (about three-quarters of the whole bulk), whilst the remaining quarter of the glandular mass represents the smaller (left) kidney and the uniting band. Each kidney has its own well-formed blood-vessels and a separate ureter. In addition, both kidneys are diseased, and it is remarkable that each of these glands is affected differently. The left one is made up of a number of cysts filled with a thick, grayish-white mass resembling putty, the whole secreting structure being destroyed. The capsule is adherent; length of the gland, five inches; breadth, two inches; shape, elongated; surface, smooth. The pelvis is dilated; its ureter obliterated. Examined microscopically, the inner surfaces of the cysts are not lined by epithelium, and the mass filling them is composed of pus, cholesterin, and débris of the glandular structure, with traces of former hemorrhages. The secreting structure is here probably atrophied and destroyed, through the pressure of continuous hemorrhagic infarctions. We have here a condition of the gland called sometimes surgical kidney, perhaps better denominated *scrofulous kidney*. The right kidney, on the other hand, is quite large, and pear-shaped; length, nine inches; capsule not adherent. When fresh, it was, on section, deep red. The gland is evidently hypertrophied from the continuous congestion called forth by its double work. Microscopically, it shows a typical *parenchymatous nephritis*. The uriniferous tubules are crowded with swollen, cloudy, epithelial cells, the glomeruli swollen, the blood-vessels highly congested, etc. No tube-casts were, however, seen in the tubuli.

The band by which the two kidneys were fused was surrounded by a great deal of adipose tissue; it is about two and a half inches long and one and a half inches thick, and, under the microscope, is seen to be made up of true kidney-structure, with an excess of connective tissue.

SALICYLIC ACID IN TÆNIA.—Ten grains of salicylic acid given hourly until four doses have been taken, and followed by a dose of castor oil, has been successfully used to expel tænia solium.

REVIEWS AND BOOK NOTICES.

ELEMENTS OF MODERN CHEMISTRY. By ADOLPHE WURTZ, Honorary Dean and Professor of Chemistry of the Faculty of Medicine of Paris, etc., etc. Translated and Edited, with the approbation of the author, by W. H. GREENE, M.D., formerly Demonstrator of Chemistry in the Jefferson Medical College, etc., etc. Philadelphia, J. B. Lippincott & Co., 1879. 12mo, pp. 697.

Dr. Greene deserves the thanks of the American public for having given to them the most practical and philosophically arranged elementary text-book on chemistry that has appeared since the establishment of the theories which have given to that science the name of The New Chemistry.

From his laboratory in the Latin Quarter, the fame of M. Wurtz as a teacher extends over all Europe, his reputation as a chemist over all the world. It is therefore with satisfaction that we welcome his book, which is at once the illustration of his methods as a teacher and the exponent of the most advanced views now held by leading chemists.

It is translated from the fourth French edition into fluent and idiomatic English, which retains with singular happiness the terseness and brilliancy of the style of the original.

We are at first surprised at the absence of a table of contents, but find that it has been rendered unnecessary by the natural order and progressive arrangement of the subjects in the text and by a copious index.

A colored plate, illustrating spectrum analysis, and one hundred and thirty-two cuts embellish the work.

Among the matters introduced by the American editor, we notice the investigations of Clermont and Frommel in arsenic pentasulphide, the American process for the extraction of silver, the existence of borax in certain Californian lakes, and the synthesis of indigo by the process of Baeyer.

We are impressed with the value of this work as a text-book for the beginner when we regard the simplicity and directness of the style in which it is written, the easy progression from the simplest facts to the principles which explain them, and the admirable way in which the phenomena of chemistry as an art are made subservient to and illustrative of chemistry as a science.

NOTES ON RHEUMATISM. By JULIUS POLLOCK, M.D., Fellow of the Royal College of Physicians, Senior Physician and Lecturer on Medicine, Charing Cross Hospital, Physician to the Foundling Hospital. Second Edition, London, 1879, pp. 115.

This little book presents the author's views in a manner so attractive and so concise that the reader wishes at the close that it had been a longer story,—a rare charm in modern medical writing. Hence, perhaps, the speedy appearance of a second edition.

The description of the clinical course of acute rheumatism is extremely graphic and true to nature. The cases characterized by extreme hyperpyrexia are well termed by the author "malignant."

To those who feel that much of the value of clinical reports is lost by reason of the present tendency to over-minuteness and undue elaboration of details in case-taking, the cases in the appendix will seem fresh and really illustrative of the course of the malady as modified by the treatment.

The author treats acute rheumatism with the salicylate of soda in doses of ten, fifteen, or twenty grains every two, three, or four hours, according to the severity of the symptoms. Relief is apparent after eight or ten doses. He considers the addition of two or three grains of carbonate of ammonia advantageous, and uses camphor water as a vehicle. Unfortunately, neither salicylic acid nor its derivatives, which are now recognized as possessing great remedial power in the ordinary forms of acute rheumatism and in some of the forms of chronic rheumatism, have been found thus far effective in the malignant cases.

Tonics are called for at the period of convalescence in all cases.

There is nothing calling for comment in the chapers on so-called muscular rheumatism, which is discussed in the usual way.

GLEANINGS FROM EXCHANGES.

THE EVIDENCE OF STILL-BIRTH.—Dr. S. W. Abbott, at the conclusion of an article on this subject (*Boston Med. and Surg. Jour.*, September 4, 1879), says that it may be inferred that a child has lived during and after its birth,—1. When the diaphragm reaches only to the fifth intercostal space. 2. When the lungs more or less completely fill the thorax. 3. When the ground-color of the lungs is broken by insular marblings. 4. When, by careful experiment, the lungs are found to be capable of floating. 5. When a bloody froth exudes from the cut surfaces of the lung on slight pressure. 6. When the air-cells are visible to the naked eye.

These proofs, complete as they are, may be strengthened by the cicatrization of the umbilicus, the scaling of the epidermis, the closure of the fœtal ducts, the size of the osseous nucleus of the inferior femoral epiphysis, the existence of milk, sugar, starch, or medicines in the stomach, determined by the appropriate chemical tests, and by the presence of fæcal matter other than meconium in the lower intestines.

CONVERSION OF CALOMEL INTO CORROSIVE SUBLIMATE.—With reference to the question as to whether a mixture of calomel and sugar

made up into powders gives rise to the formation of corrosive sublimate, the testimony seems to tend to the negative. G. Vulpius (*Archiv de Pharmacie*, quoted by *Bost. Med. and Surg. Jour.*, August 28, 1879) has arrived at the following conclusions: 1. No corrosive sublimate forms in twenty-four hours in mixtures of calomel with white sugar, milk sugar, calcined magnesia, carbonate of magnesium, or bicarbonate of sodium. 2. No such formation takes place in three months in mixtures of calomel with calcined magnesia, carbonate of magnesium, and sugar. 3. Mere traces of corrosive sublimate are found at the end of three months in a mixture of calomel, bicarbonate of sodium, and milk sugar. 4. A considerable quantity of corrosive sublimate forms in the same time in a mixture of calomel, sodium bicarbonate, and cane sugar. 5. Corrosive sublimate forms in calomel powders containing calcined magnesia or sodium bicarbonate, if digested with water. 6. The formation of corrosive sublimate in mixtures of calomel and alkalies, digested in water for a short time, is not favored by the presence of hydrochloric acid, but, on the contrary, hindered to some extent, on account of the neutralization of the alkalies by the acid.

NARCOTISM FROM NUTMEG.—Dr. Barry (*St. Louis Clin. Record*, 1879, p. 133) gives the following case. Mrs. N., aged 38, mother of four children, was confined on June 29, at nine o'clock. The child was a girl, and the largest I have ever seen; weight fourteen and one-half pounds. Labor natural and easy. Had a light spasm after the last pain. The spasm was hysterical. On the 30th the "old women" persuaded her to take nutmeg tea. One and a half nutmegs were used in making the tea, and she drank it during the day. About 10 P.M. she began to get drowsy. By four o'clock the next morning she was in a profound stupor. At 10 A.M. the narcotic effects of the nutmeg began to die out, and by 4 P.M. she had pretty well recovered. The symptoms were about the same as those produced by opium, and the remedies were the same.

SENECIO AUREUS (GOLDEN RAGWORT: SQUAW-WEED) IN THE RHEUMATIC DIATHESIS.—Dr. N. S. Davis says that his attention was called two years ago to the use of the senecio aureus as a remedy of value in relieving chronic rheumatic irritation in any of the fibres of the body, and especially for removing that state of morbid sensitiveness we call the rheumatic diathesis. In one case he gave 0.3 cc. (mm. xlv) to 0.6 cc. (℥iss) of the fluid extract made from the root, thrice daily, with very happy effect. Since then he had administered this remedy in a number of cases, and his success with it has been such as to lead his recommending its further trial.—*Chicago Med. Jour. and Examiner*, September, 1879.

HOW TO EXTRACT TAPE-WORM.—Dr. Bartlett has used male fern, pumpkin-seed, and kousso, but gives preference to the latter. Care should be taken to prepare the patient for the operation of the medicine. Instructions should be given him to this effect: "It is idle for you to take this medicine without following my directions exactly. Remember when you have an operation to use a clean chamber, and after the evacuation note if the worm be passing; if so, do not attempt to pull it out, but lie down on the floor beside the vessel till another operation occurs, or, if one does not occur, take a large injection, once, twice, three, or four times, using, if you have it, doses of the worm medicine with the water. If the worm does not pass, send for me, letting it hang from you till I come. If circumstances render it necessary to remove the worm, draw upon it slowly and steadily. If once it is started, never stop the motion; keep pulling till the very fine neck appears, and then repeat the injection, and while the bowel is full of water, and if possible at the instant when its contents are discharged, draw again upon the worm, when it quite often will be washed out entire. Don't forget, while you are waiting with the worm protruding, to place something upon it, as the cover of the chamber, otherwise it may go back. When the worm is evacuated, make certain that no one empties the chamber before I come. Do not, out of idle curiosity, lift the worm up with a stick, or stir it; you may in this way lose the head."

Dr. Bartlett does not give a preliminary purgative, as he thinks the medicine is thus not only diluted by the more profuse secretions of the bowel, but is hurried through the intestine without a pause sufficiently long to allow of its effect upon the worm.—*Chicago Med. Jour. and Examiner*, September, 1879.

ETHIDENE DICHLORIDE AS AN ANÆSTHETIC.—Dr. R. Macphail, having given this anæsthetic in six cases, carefully observing its effects, says that, comparing it with chloroform, the ethidene possesses greater volatility and solubility, and to this appear to be due the rapidity of the action of the drug and the subsequent rapid recovery, while from its greater stimulant action on the heart, as shown by the pulse, and its rapid elimination from the system, it is a safer anæsthetic to use.—*Edin. Med. Jour.*, September, 1879.

NYSTAGMIC MOVEMENTS OF THE EYES CAUSED BY AN AURAL AFFECTION.—Dr. Pflüger publishes in the *Deutsche Zeitschr. für Prakt. Med.*, 1878, No. 35, and *Cbl. f. Med.*, May 31, 1878, a case of polyp in the ear, complicated with a chronic purulent catarrh of the middle ear, where nystagmic movements of the eyes and tendency to falling invariably appeared when the loop that had been put round the polyp was drawn tighter or even pulled. The author explains this case by assuming that the peculiar movements of the eyes were due to the fact that the irritation was propagated from the polyp to certain

peripheric portions of the brain. This assertion is supported by the situation of the polyp, its basis occupying a large portion of the external roof of the lateral meatus, especially of the tegmen tympani, and being immediately in front of the tympanum. Hitzig and Curschmann have proved that there exist in the brain several spots which when stimulated cause nystagmus.—*Edinburgh Med. Jour.*, September, 1879.

SYPHILITIC INOCULATION WITH A TOOTH-BRUSH.—Dr. Buchanan Baxter saw at Blackfriars Hospital a boy of 3, presenting a well-marked papular syphilide, with secondary sore throat. No primary sore was found, but under the left lower jaw an enlarged gland existed, which pointed to the gum as the seat of inoculation. The father was suffering at the time with an "ulcerated mouth," and the mother from a macular syphilide. The fact was elicited that the child had been punished six or seven weeks previously for sucking his father's tooth-brush.—*Lancet*, v. i., 79, May 31.

LYMPHADENOMA OF THE TESTIS.—Profs. Monod and Terrillon terminate a paper in the *Archives Générales* for July with the following conclusions: 1. Lymphadenoma, or tumor constituted by a tissue of new formation comparable to that of lymphatic glands, may be developed in the testis. 2. It constitutes a variety of sarcocele which is quite distinct in an anatomical point of view, the diagnosis of which in the living is not impossible. 3. It seems to affect the gland itself by preference, sparing the epididymis. 4. From the commencement the gland is attacked throughout its whole extent. The degeneration seems to commence in the intratubular cellular tissue, and invades secondarily the walls of the seminiferous tubes, which disappear themselves in proportion as the neoplastic tissue extends. 5. The lymphadenoma may occupy both testes simultaneously,—a fact that appears special to this variety of neoplasm of the testis. 6. Generalization takes place early and rapidly. Of frequent occurrence in the viscera and the bones, it may also involve cutaneous and subcutaneous tissue situated at a great distance from the primary seat of the disease. This and the preceding characteristic may prove of great utility in the diagnosis of the disease. 7. This infection of the economy may, during a relatively long period, not give rise to any appreciable cacnexia. 8. This lymphadenoma does not appear to be accompanied by leukæmia. 9. Prognosis is fatal, and surgical intervention, up to the present time, has always proved useless.—*Medical Times and Gazette.*

INCOMPLETE RETENTION OF URINE.—Dr. Alfred Jean, whose paper on this subject took the Civiale prize in 1878, gives the following résumé of his work in the *Gazette des Hôpitaux*, May 6, 1879:

Incomplete retention of urine should not be regarded as an exclusively local affection. It may, perhaps, for a long time involve only the organs concerned in the secretion and excretion of urine, but these are the exceptional cases. Sometimes the attention of the patient is directed to the digestive apparatus, disturbances of which may be the initial symptom; but, whatever may be the beginning of the affection, always, or almost always, the greater part of the economy becomes involved. The most important vesical lesion is the general hypertrophy of the bladder-walls, affecting the muscular elements of the different coats as well as the interstitial tissue. Prostatic obstruction acts principally on the circular and plexiform layers of the vesical walls, giving rise most frequently to horizontal bands, while urethral obstruction affects the external longitudinal layer. These changes are due to inflammatory processes. Subsequently the hypertrophied muscular fibres become constricted and paralyzed by a new formation of connective tissue, and imperfect contractions of the bladder result. The hypertrophic cystitis is followed by a true interstitial cystitis. In the kidneys are found interstitial and suppurative nephritis (surgical kidney). The principal symptoms are frequent and painful micturition, stagnation of urine, incontinence, polyuria, digestive troubles, fever, sometimes continuous, sometimes intermittent. Then follow uræmic poisoning and the cachexia. The prognosis is always very grave, except in cases of stricture.—*New York Medical Journal.*

MISCELLANY.

IN a letter to the London *Lancet*, the writer quotes the following passage from a letter written by Edison: "I am at present experimenting on a stethoscope, with every prospect of success; but the instrument will be very expensive, and for this reason cannot come into general use. The microphone (so called) cannot be used for this purpose, as it translates extraneous sounds, and is in no way reliable."

GERMAN STATISTICS OF OLD AGE.—An officer of the Austrian Statistical Department, it is stated, has been collecting some curious facts, purporting to show the comparative longevity of several parts of Europe. Among a variety of other statements, he asserts that there are twelve thousand eight hundred and thirty-one persons over 90 years of age throughout the whole of Europe, of which number six thousand two hundred and three are women. In Italy, again, female life is superior to that of men, there being in that country two hundred and forty-one women over 100 years of age, and only one hundred and sixty-one men who have attained to three figures. Some allowance must, of course, be

made for the preponderance of women in the population generally, but when this has been done the female sex will still show the best average of long life, if those figures are accurate. In Hungary, on the contrary, there are more old men than old women, notwithstanding that in that country the females preponderate, though not to the same extent as in Italy. Austria, it is stated, has one hundred women who are over a century old, while only eighty-six men come under the same heading. The figures given seem to demonstrate that Germans are considerably longer lived than Sclaves. Among the Germans of Upper Austria and Salzburg there are eleven and a half per cent. of this population who come under the category of old people, while among the Sclaves of Galicia the percentage is but four.

RECOGNITION OF PROFESSIONAL DEVOTION TO DUTY.—The municipal authorities of Paris have recently caused the erection of a commemorative tablet in the Hôpital des Enfants Malades, to record the devotion of four physicians and pharmaceutists of that institution who have perished in the fulfilment of their duty, three having succumbed to diphtheria and one to smallpox. One of these was a *religieuse*.

FRAUDULENT PULLNA WATER.—Professor Battandier, of Algiers, reports that imitations of this celebrated mineral water are sold both at Paris and at Algiers. The fraudulent water contains only traces of chlorides and of lime salts, but it contains in each litre fifteen grammes each of sodium sulphate and of magnesium sulphate.

AMERICAN GYNÆCOLOGICAL SOCIETY.—The following papers were read at the fourth annual meeting of the Society, which was held in Baltimore, Maryland, on September 17, 18, and 19:

1. Annual Address,—The Gynæcology of the Future and its Relations to Surgery. By the President, Dr. T. G. Thomas.

2. The Justo-Minor Pelvis, with the report of a case. By Dr. W. T. Lusk.

3. Clinical Notes on the Hypertrophic Elongation of the Cervix Uteri. By Dr. W. Goodell.

4. The Principles and Practice of Gynæcology as related to Insanity in Women. By Dr. A. J. C. Skene.

5. Complete Congenital and Accidental Absence or Atresia of the Vagina in the Pregnant and Unpregnant Female. By Dr. I. E. Taylor.

6. Idiopathic Septicæmia in Gynæcological Practice. By Dr. J. R. Chadwick.

7. The Treatment of Puerperal Septicæmia by Intra-Uterine Injections. By Dr. E. W. Jenks.

8. Intra-Uterine Medication. By Dr. J. P. White.

9. Intra-Pelvic Dislocation of the Ovaries. By Dr. P. F. Mundé.

10. Report of a Case of Extra-Uterine Pregnancy. By Dr. J. C. Reeve.

11. The Early Application of the Forceps in the First Stage of Natural Labor. By Dr. I. E. Taylor.

12. Intra-Uterine Medication by Iodized Phenol. By Dr. R. Battey.

13. A New Method of Performing Decapitation. By Dr. W. L. Richardson.

14. Mismanaged Labor the Source of much Gynæcological Practice. By J. Tabor Johnson.

15. The Relations of Symptoms to Versions and Flexions of the Uterus. By Dr. E. Van De Warker.

The meetings were held in the Hall of the Johns Hopkins University, on Howard Street.

MEMBRANOUS LARYNGITIS FROM EAU DE COLOGNE.—Reid reports the case of a patient who, during a faint, received some cologne into her nasal passages, pharynx, larynx, and trachea. On the second day two small ulcers appeared in the pharynx, and a small piece of membrane was coughed up. Within ninety-two hours a perfect cast of the larynx, trachea, and left bronchus was brought up in a piece, with instant relief to all urgent symptoms. Patches of membrane remained on the nasal mucous membrane till the end of the seventh day. The temperature varied from 99.4° to 97.4°, the pulse from 130 to 88. No albumen appeared in the urine.—*Boston Medical and Surgical Journal;* from *British Medical Journal.*

NOTES AND QUERIES.

HYPODERMIC INJECTION OF MORPHIA.

DR. H. H. KANE, of New York City, who has for some time past been collecting statistics on the hypodermic injection of morphia, would consider it a great favor if members of the profession who see this and have had experience with the instrument will answer the following questions:

1. What is your usual dose?
2. Do you use it alone or with atropia?
3. What is the largest amount you have ever administered?
4. Have you had inflammation or abscess at the point of puncture?
5. Have you had any deaths or accidents caused by this instrument?
6. Do you know of any cases of opium habit thus contracted?

Where there has been an autopsy (5), please state the fact and the results obtained therefrom. All communications will be considered strictly confidential, the writer's name being used only when he gives his full consent thereto. Address all letters to Dr. H. H. Kane, 366 Bleecker Street, New York.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM SEPTEMBER 13 TO SEPTEMBER 20, 1879.

MIDDLETON, P., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty in the Department of the East, to take effect October 1, 1879, and to report to the Commanding General, Department of Texas, for assignment to duty. S. O. 215, c. s., A. G. O., September 17, 1879.

ADAIR, GEO. W., LIEUTENANT AND ASSISTANT-SURGEON.—Assigned to duty as Post-Surgeon, Fort Mackinac, Michigan. S. O. 161, Department of the East, September 13, 1879.

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